

Caponago, February 10th 2010

GENERAL TECHNICAL NOTES

1. The transformers defined in the catalogue as “safety transformers” meet the harmonized European standards EN61558-1 (CEI 96-3) and EN 61558-2-6 (CEI196-7). They are manufactured with high quality material and with manufacturing processes developed in a 20 year old experience; this is guarantee of very high quality and reliability. The tests of the functional parameters and of the dielectric strength between primary and secondary windings, carried out on every single item, practically eliminate any rejects on production lines. The position of the primary and secondary windings in separated chambers and the encapsulation in epoxy resin make these transformers particularly safe and strong, both mechanically and electrically. They moreover withstand atmospheric pollution such as dust, humidity, and so on. The use of pins made of tin-plated phosphor bronze make them very resistant and very easy to weld.
2. The meaning of the different types of overload and short circuit protection is in compliance with the above mentioned standards and can be explained as follows:
 - *Inherently short-circuit proof*: the transformer which undergoes a short circuit under the conditions foreseen by the standard does not reach, in the short period, temperatures which may be dangerous for the material it is made of.
 - *Output fuses*: in order to prevent overload or short circuit from reaching dangerous temperatures, the transformer has to be protected by means of a fuse delayed by the value indicated on each secondary output; for transformers up to 30VA the fuses must comply with the standard CEI EN 60127.2.3 (e.g. series ST523 Omega); for transformers with higher power the fuse must comply with the standard CEI EN 60127.2.6 (e.g. series VT521 Omega).
3. When planning an application, please consider that every transformer generates heat, therefore adequate heat exchange must be provided. Since there are different elements of dissipation of the heat produced by the transformer (dimensions, thickness, construction material of the housing, ventilation splits, environmental temperature, load conditions, presence of other elements generating heat, and so on) and since the life of a transformer can be considerably reduced by high-temperature conditions, we suggest to carefully verify these elements.
4. Due to their peculiarities safety transformers for printed circuits are to be “incorporated” with a IP00 protection degree: this means that protection from direct and indirect contacts must be guaranteed by an adequate housing, which will not only offer electrical safety and mechanical stoutness, but it will also withstand temperatures the transformer might reach under overload or short-circuit conditions.
5. The dimensions shown in this catalogue are approximate and they are expressed in millimetres, except where differently specified.
6. All transformers, except those defined in the catalogue as “safety transformers” in accordance with the harmonized European standards EN61558-1 (CEI 96-3) and EN 61558-2-6 (CEI196-7), are always supplied as semi-finished products, produced for specific uses to be defined by the client. Type tests and any other test necessary to verify the compliance of the features of the transformer with the technical and standard requirements lies within the exclusive competence of the customer. For this reason ITACOIL will supply, upon specific request by the customer, samples and technical information to the customer. Only upon a specific request by the customer, upon a written confirmation by ITACOIL and upon payment of the analysis and tests costs, ITACOIL will supply finished custom-made products.
7. For custom-made products the customer must specify required characteristics, preferably through a technical specification; ITACOIL may need to make some modifications because of manufacturing, material availability or other founded reasons. Any characteristic not required in writing or adequately specified, or derogated, or not obtainable, cannot be disputed. The value of functional parameters, dielectric strength and so on, for which a 100% test has not been requested, are intended as typical values. If there are no specific test requirements made by the customer, custom-made products will be tested according to the general provisions of our quality system.

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